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MYOCARDIAL INFARCTION SYMPTOM PRESENTATION AND HOSPITAL MORTALITY: RELATIONSHIP TO AGE AND SEX IN THE NATIONAL REGISTRY OF MYOCARDIAL INFARCTION (NRMI)

ACC Poster Contributions
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Session Title: Unstable Ischemic Syndrome/Outcomes & Novel Risk Modifiers
Abstract Category: Unstable Ischemic Syndrome/Long-Term Outcome
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Background: To our knowledge, no studies have examined the relationship between symptom presentation and hospital mortality stratified by age and sex following acute myocardial infarction (MI).

Methods: We analyzed data from 1,143,513 consecutive patients (481,581 female and 661,932 male) with confirmed MI in the NRMI (1994-2006). Transfer patients were excluded given the potential for incomplete reporting. Age-specific analyses and multivariable logistic regression models were used to assess the predictors of age and sex differences in hospital mortality. Variables entered into each model included baseline demographics, presenting and hospital characteristics, invasive cardiac procedures and pharmacological treatments received.

Results: Among MI patients with chest pain (CP), hospital mortality rates were higher in women than men, but the difference decreased with age (Table 1). Mortality was higher for all age-sex groups if they presented without CP (vs, with CP) . Younger women presenting without CP had greater hospital mortality than men, a trend that reversed with increasing age.

TABLE 1. Adjusted Odds Ratio For Hospital Mortality for MI Patients: By Chest Pain on Presentation, Age and Sex.

	CP Men	CP Women	No CP Men	No CP Women
Ages: <45 yr	Reference	1.27 (1.07-1.52)	2.98 (2.54-3.51)	3.22 (2.65-3.91)
Ages: 45-54 yr	Reference	1.26 (1.13-1.40)	2.38 (2.16-2.62)	2.54 (2.25-2.86)
Ages: 54-64 yr	Reference	1.22 (1.15-1.30)	2.01 (1.89-2.13)	2.06 (1.92-2.21)
Ages: 65-74 yr	Reference	1.11 (1.07-1.16)	1.71 (1.64-1.78)	1.57 1.50-1.64)
Ages: 75-84 yr	Reference	0.98 (0.96-1.01)	1.41 (1.38-1.45)	1.16 (1.12-1.19)

Conclusions: MI patients who present without CP had significantly higher mortality than those with CP, a finding observed irrespective of sex. Also, women with MI presentation of CP had higher hospital mortality than men. Sex differences in mortality decreased markedly with age.